

Abstract

The present invention provides a convenient process for the preparation of S-fluoromethyl 6 α ,9 α -difluoro-11 β -hydroxy-16 α -methyl-17 α -propionyloxy-3-oxoandrosta-1,4-diene-17 β -carbothioate, a compound of formula 1, comprising

- (a) treating 17 β -[(N,N-dimethylcarbamoyl)thio]carbonyl-6 α ,9 α -difluoro-11 β -hydroxy-16 α -methyl-17 α -propionyloxy-3-oxoandrosta-1,4-diene, a compound of formula 3 with alkali metal carbonate-alcohol system to obtain 6 α ,9 α -difluoro-11 β -hydroxy-16 α -methyl-17 α -propionyloxy-3-oxoandrosta-1,4-diene-17 β -carbothioic acid, a compound of formula 4;
- (b) reacting the compound of formula 4 with bromofluoromethane to yield the compound of formula 1.

The present invention also provides an improved process for preparation of compound of formula 1 comprising

- (a) reacting 6 α ,9 α -difluoro-11 β -hydroxy-16 α -methyl-3-oxo-17 α -(propionyloxy)androsta-1,4-dien-17 β -carboxylic acid, a compound of formula 2, with N,N-dimethylthiocarbamoyl chloride in an inert aprotic solvent in the presence of an iodide catalyst and a base to give a compound of formula 3,
- (b) reacting the compound of formula 3 with a hydrosulfide reagent and bromofluoromethane to obtain a compound of formula 1.